

NOTES ON THE BIOLOGY AND DISTRIBUTION OF SOME NORTH QUEENSLAND LYCAENID BUTTERFLIES

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Abstract

New distribution records are given for the lycaenid butterflies *Narathura wildei wildei*, *Ogyris amaryllis*, *Jamides aleus coelestis* and *Anthene lycaenoides godeffroyi* and new food plants are recorded for *Hypolycaena phorbas* (*Cassia fistula*) and *Hypochrysops apelles* (*Planchonia careya*). Some details of parasites affecting *Jalmenus pseudictinus* are included.

The following observations provide new distribution records for a number of butterflies in the family Lycaenidae and make additional contributions to the biology of some species. The nomenclature follows that of Common and Waterhouse (1972).

***Hypolycaena phorbas* (Fabricius).** A larva collected in March 1977 feeding on *Cassia fistula* in Townsville pupated on 31 March and emerged 9 April 1977. This represents a new food plant record for this butterfly.

***Jalmenus pseudictinus* Kerr and Macqueen.** A large breeding colony of this species occurs 27 km by road from Paluma on a ridge 4 km north of Hidden Valley. This general area is mentioned in Common and Waterhouse (1972). When visited on 18 March 1978 numerous adults were on the wing, seldom flying far from the small shrubs of *Acacia flavescens* upon which the larvae were feeding. There were many larvae and some pupae present on the phyllodes. Many pupae were collected but all had been parasitized by either tachinid flies or ichneumonid wasps. Kerr and Macqueen made similar observations at Millmerran but pupae they found 16 km west of Paluma were not parasitized (Common and Waterhouse, 1972). Larvae were also parasitized. Small braconid wasps which pupate in white cocoons over which the host larvae are invariably draped were common. Larvae which were parasitized by braconid wasps were often identifiable while still active because of obvious colour variations from the normal. During March and April 1978 the period of pupation for both *Jalmenus pseudictinus* and the braconid parasite was six days. The tachinid flies appear to have a similar pupation period as noted in several specimens. Several pupae collected on phyllodes of the food plant were attended by many individuals of the ant *Frogatella kirbyi* but were still parasitized. On 24 April 1978 a female specimen was taken hilltopping 18 km west of Paluma. Another was seen in the area and larvae were noted on nearby *Acacia flavescens* shrubs on a later visit.

***Narathura wildei wildei* (Miskin).** A single male specimen was collected on 11 May 1978 at Garners Beach, just north of Mission Beach, thus extending the southern limit given in Common and Waterhouse (1972) by 25 km.

***Narathura micale* (Boisduval).** Specimens collected on 19 July 1977 at Peach River, north-east of Coen, appear close to *N. m. amphis* (Waterhouse). Monteith and Hancock (1977) consider the possibility of clinal variation in the species although they concluded that Peach River specimens were *N. m. amytis* (Hewitson). The difference between the two subspecies, according to Waterhouse (1942), is in the width of the black band along the termen and in the degree of

green above. The fact that the type locality for *N. m. amphis* is Mackay and that for *N. m. amytis* is Cape York, in each case almost the extreme end of the species' total range, supports the notion of clinal variation. A specimen examined from near Cooktown has narrower black margins than specimens from near Townsville. The Peach River specimens are not unlike the Cooktown specimen *Ogyris amaryllis* Hewitson. A male was taken and others seen hilltopping on 1 May 1978, 34 km south of Greenvale, about 160 km west of Townsville. The subspecific status of this single specimen cannot be determined although it is likely to be subspecies *meridionalis*.

Hypochrysops apelles (Fabricius). This is a fairly common species in the Townsville region and has been found breeding on *Planchonia careya* on many occasions. This is a new food plant record for this butterfly. *P. careya* may well be a food plant replacing *Angophora floribunda* in non-coastal areas of northern Queensland.

Jamides aleus coelestis (Miskin). This beautiful butterfly has not previously been recorded south of Tully. Two males were collected in February 1976 in rain-forest on the Wallaman Falls road 30 km south-west of Ingham, extending the southern known limit by 90 km.

Anthene seltuttus affinis (Waterhouse and Turner). This species is common in Townsville and has been found breeding on *Cassia fistula* where the pupae are usually attached to the stems.

Anthene lycaenoides godeffroyi (Semper). Recorded in Common and Waterhouse (1972) as occurring south to Cardwell. One specimen was netted in a Townsville garden in April 1976. More recently I found the species breeding in Townsville on the University campus. The larvae were feeding on both leaves and flowers of *Cassia fistula* and were attended by green ants, *Oecophylla smaragdina*, or by small black ants in a tree where green ants were absent. Pupation of three of these larvae occurred on 25 January 1978 and adults emerged seven days later. All pupae were on the surface of the leaves and were initially bright green in colour, changing to a dark brown colour just prior to emergence. In one tree pupae of both *A. l. godeffroyi* and *A. s. affinis* were present, the two species being easily distinguished as the pupae of the former are stouter. The larvae of the latter were occasionally parasitized by tachinid flies. These records extend the known distribution of *A. l. godeffroyi* southward by 130 km.

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References

- Common, I. F. B. and Waterhouse, D. F., 1972. *Butterflies of Australia*. Angus and Robertson, Sydney.
- Monteith, G. B. and Hancock, D. L., 1977. Range extensions and notable records for butterflies of Cape York Peninsula, Australia. *Aust. ent. Mag.* 4(2): 21-38.
- Waterhouse, G. A., 1942. Notes on Australian butterflies in the Australian Museum. No. 2. *Rec. Aust. Mus.* 21(2): 122-125.